

**WHAT IS CLAIMED IS:**

1. An amplifier apparatus, comprising:
  - first amplifying means for amplifying an analog sound signal according to a first acoustic gain;
  - converting means for converting said amplified analog sound signal to a digital sound signal;
  - second amplifying means for amplifying, according to a second acoustic gain, said digital sound signal converted by said converting means; and
- 10 controlling means for obtaining a combined acoustic gain from said first and second acoustic gains, and keeping said combined acoustic gain constant by modifying said second acoustic gain in response to a change of said first acoustic gain.
2. An acoustic system, comprising:
  - 15 a plurality of audio mixers; and
  - at least one amplifier apparatus for outputting digital sound signals to said audio mixers, said amplifier apparatus including first amplifying means for amplifying an analog sound signal according to a first acoustic gain, converting means for converting said amplified analog sound signal to a digital sound signal, second amplifying means for amplifying, according to a second acoustic gain, said digital sound signal converted by said converting means, a plurality of third amplifying means for amplifying, according to respective third acoustic gains, said digital sound signal amplified by said second amplifying means, and controlling means for obtaining a combined acoustic gain from said first and second acoustic gains, and keeping said combined acoustic gain constant by modifying said second acoustic gain in response to a change of said first acoustic gain, wherein
  - 25 said converting means is adapted to output said converted digital sound signal to one of said audio mixers,
  - 30 said third amplifying means is adapted to output said amplified digital sound signals to the remaining audio mixers,
  - 35 said one audio mixer is adapted to output to said controlling means a control signal indicative of an instruction to change said first acoustic gain, and to allow said controlling means to obtain a combined acoustic gain from said first and second acoustic gains, and to keep said combined acoustic gain constant by modifying said second acoustic gain in response to a change of said first acoustic gain, and
  - each of said remaining audio mixers is adapted to output to said controlling means

a control signal indicative of an instruction to change said third acoustic gain, and to allow said controlling means to change said third acoustic gain of said third amplifier.

3. An acoustic system, comprising:

5 a plurality of audio mixers; and

at least one amplifier apparatus for outputting digital sound signals to said audio mixers, wherein

said amplifier apparatus includes first amplifying means for amplifying an analog sound signal according to a first acoustic gain, converting means for converting said

10 amplified analog sound signal to a digital sound signal, second amplifying means for amplifying, according to a second acoustic gain, said digital sound signal converted by said converting means, a plurality of third amplifying means for amplifying, according to respective third acoustic gains, said digital sound signal amplified by said second amplifying means, registering means for registering one of said audio mixers as a main

15 mixer, and registering each of the remaining audio mixers as a secondary mixer, and controlling means for preventing said second and third acoustic gains from being changed by said one audio mixer, having said one audio mixer receive said digital sound signal from said converting means, obtaining a combined acoustic gain from said first and second acoustic gains, keeping said combined acoustic gain constant by modifying said second acoustic gain in response to a change of said first acoustic gain, and having said remaining

20 audio mixers receive said respective digital sound signals from said third amplifying means.

4. An acoustic system as set forth in claim 2 or claim 3, in which

25 said controlling means includes a detecting unit for detecting said change of said first acoustic gain, and a judging unit for judging whether or not said first acoustic gain is changed on the basis of information obtained from said detecting unit, starting to compute an elapsed time when the judgment is made that said first acoustic gain is changed, and judging whether or not said computed elapsed time exceeds a predetermined value,

30 said controlling means is adapted to allow said second acoustic gain to be modified in response to said change of said first acoustic gain when the judgment is made by said judging unit that said computed elapsed time exceeds said predetermined value.